Bang & Olufsen
CODE CONVERTER

INSTRUCTIONS FOR INSTALLATION AND OPERATION

INTRODUCTION

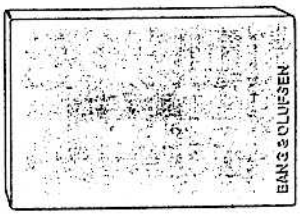
The Bang & Olufsen Code Converter allows you to adapt your Beosystem 5000 or 7700 so that all the remote functions may be accessed with the Beolink® 1000 remote terminal.

The Beolink 1000 remote terminal is supplied with the Bang & Olufsen MX 5000 television or is available as an accessory from any authorized Bang & Olufsen dealer. All functions of Bang & Olufsen's MX 5000 television and VX 5000 Video Recorder are controlled by the Beolink 1000 remote terminal. Therefore, by installing the Code Convertor with one of the audio systems mentioned above, it becomes possible to control all your Bang & Olufsen products with a single remote terminal-the Beolink 1000.

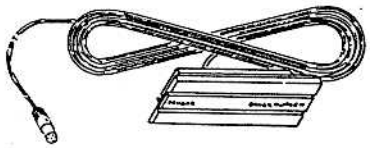
Additionally, the Code Converter is supplied with all the necessary cables and adaptors for connecting the Video System 5000 to the audio system, allowing you to access high quality television and VCR sound through your Bang & Olufsen audio system.

The Code Converter is supplied with the following items:

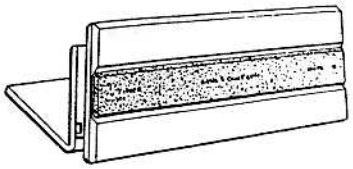
ITEM #	DESCRIPTION
1.	Code Converter control box.
2.	Code Converter Infra Red Sensor
3.	Infra Red Sensor table top mount
4.	AC power supply (Not used with Beosystem 5000 or Beocenter 7700)
5.	Cable with 8 pin DIN plug on one end and 2-3 pin speaker plugs on the other end. (Not used with Beosystem 6000 or 8000.
6.	Cable with 5 pin DIN plug on each end.
7.	Adaptor cable with 5 pin DIN socket on one end and 2-RCA plugs on the other end.
8.	Cable with mini-plug on one end and blue LED on the other end. (Not used with Beosystem 5000 or Beocenter 7700)



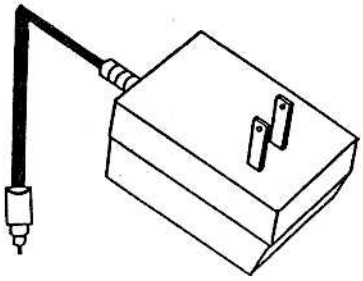
Item #1
Code Converter Control Box



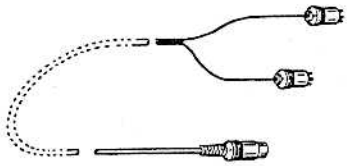
Item #2
Code Converter Infrared Sensor



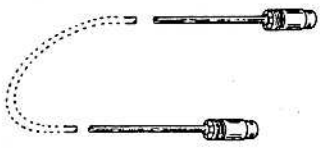
Item #3
Infrared Sensor Table Top Mount



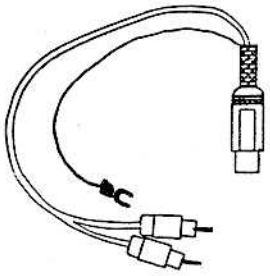
Item #4
AC Power Supply



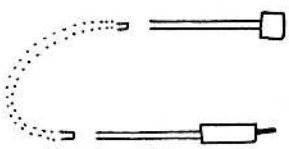
Item #5
Cable With 8 Pin DIN Plug on one End
And 2-3 Pin Speaker Plugs on Other



Item #6
Cable With 5 Pin DIN Plug
On Each End



Item #7
Adaptor Cable With 5 Pin DIN Socket
On One End And 2-RCA Plugs on The Other



Item #8
Cable With Mini-Plug On One End
And Blue LED On The Other

INSTALLATION INSTRUCTIONS FOR BEOSYSTEM 5000 AND BEOCENTER 7700

IMPORTANT: These instructions have been written for installation of the Code Converter in systems where Master Control Links (remote room sensors) have not been installed. If your system has Master Control Links installed, please contact your Bang & Olufsen dealer. Page 12 of this instruction sheet contains the illustrations and part numbers of the accessories required for hook-up of the Code Converter to Bang & Olufsen systems with Master Control Links.

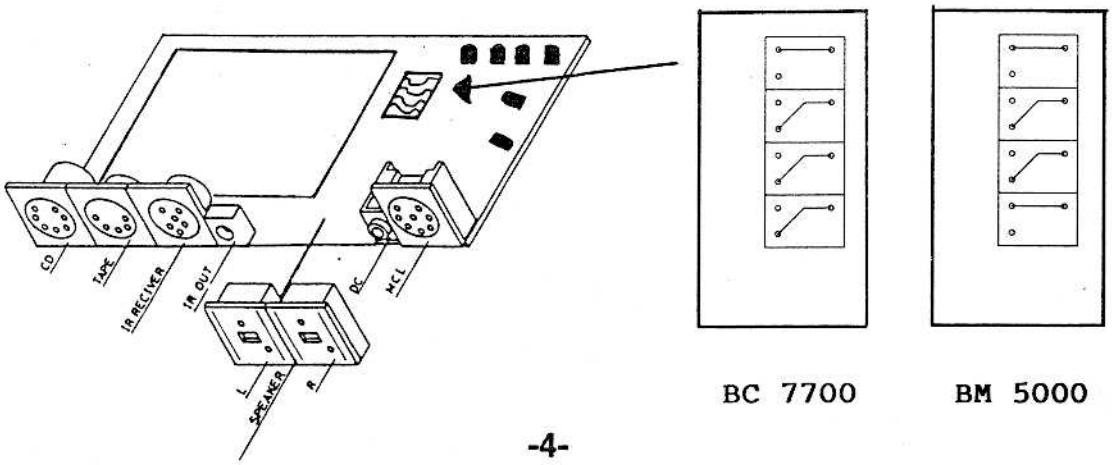
1. Prepare the audio system.

IMPORTANT! Always disconnect the audio system from AC power before installing the code converter.

Unplug the speakers which are plugged into the audio system Speaker 1 sockets. It will be necessary to keep track of which plug is for the left speaker and which is for the right. Place these plugs temporarily to the side.

2. Set the code switches in the control box.

Remove the plastic cover from the control box (Item #1). This is done by gently spreading the the left and right sides of the cover at the bottom and lifting it away from the metal chassis. The underside of this cover contains a label indicating the location of the sockets. Place the uncovered chassis of the control box on a table with the sockets facing you. Just to the right of the shielded box you will see four blue "switches". Each switch has two positions. Select the correct position by pressing down on each wire spring with a flat blade screwdriver, and inserting the wire spring under the appropriate hook according to the illustration. Set these switches as illustrated below, making sure that you have selected the correct setting for your system.



BC 7700 BM 5000

3. Connect the Code Converter to your Bang & Olufsen audio system. (See page 12 if Master Control Links are installed)

Using item # 5 (Cable with 8 pin DIN plug on one end and 2-3 pin speaker plugs on the other end), Plug the 3 pin speaker plugs into the **Speaker 2 sockets** of the Beomaster 5000 or Beocenter 7700. Make sure that the left and right plugs have been plugged into the left and right sockets.

Plug the other end of this cable into the socket on the code converter box marked **MCL** (last socket on the right.)

4. Plug the speakers into the Code Converter control box.

Plug the left and right speakers which were unplugged from the audio system into the speaker sockets on the control box. These sockets are located on the small block which protrudes from the socket panel of the code converter control box. Make sure that the left and right speakers are plugged into the correct sockets. The location of the left and right sockets is indicated by a "L" or "R" marking on the plastic block.

5. Mount the Infrared Sensor to the table top mount and plug it into the control box.

Remove the rear cover of the infrared sensor. The rear cover unsnaps by inserting a small screwdriver no more than 1/4" into the gap between the front and rear of the sensor and twisting the screwdriver slightly to separate the front and rear portions.

The rear cover has 2 holes. Mount the sensor to the tabletop mount using the two small screws provided with the mount. Route the wire for the sensor around the right side of the mount as you look at it from the front. Snap the front of the sensor back into the rear portion, making sure that it is correctly seated.

Plug the sensor into the control box socket marked **TRANSCEIVER.**

6. Connect the MX 5000 Television to your audio system.

Plug one end of item #6 (cable with 5 pin DIN plug on each end) into either of the two sockets on the back of the MX 5000 labeled **POWER LINK.** Plug the other end of this cable into the DIN socket of item #7 (Adaptor cable with 5 pin DIN socket on one end and 2-RCA plugs on the other end).

Now plug the RCA plugs from the adaptor cable into the sockets on the Beomaster 5000 marked **TP-2 IN** or on the Beocenter 7700 marked **TAPE 2 PLAY.** Make sure that the left and right channel RCA plugs are in the correct sockets. Some of the adaptor cables supplied with the code converter have a ground wire attached. It is not necessary to connect the ground wire. It will be safe to allow it to hang free.

CAUTION: NEVER CONNECT THE 5 PIN PLUG OF ITEM #6 DIRECTLY TO THE INPUT OF THE BEOMASTER 5000 RECEIVER. DOING SO MAY RESULT IN DAMAGE TO THE AUDIO SYSTEM. ALWAYS USE ITEM #7 TO MAKE THIS CONNECTION TO THE RCA SOCKETS.

7. Complete the installation of your code converter and test it.

Recheck that the code switches are in the correct position, and re-install the cover on the control box. Since the control box requires no further attention, it can be placed in a spot where it will not be seen; e.g. behind the audio system.

Place the sensor where it can be "seen" by the remote control.

Plug the audio system and video system into the AC outlet.

Press the RADIO button on the Beolink 1000 terminal. The receiver should switch on and play a radio station.

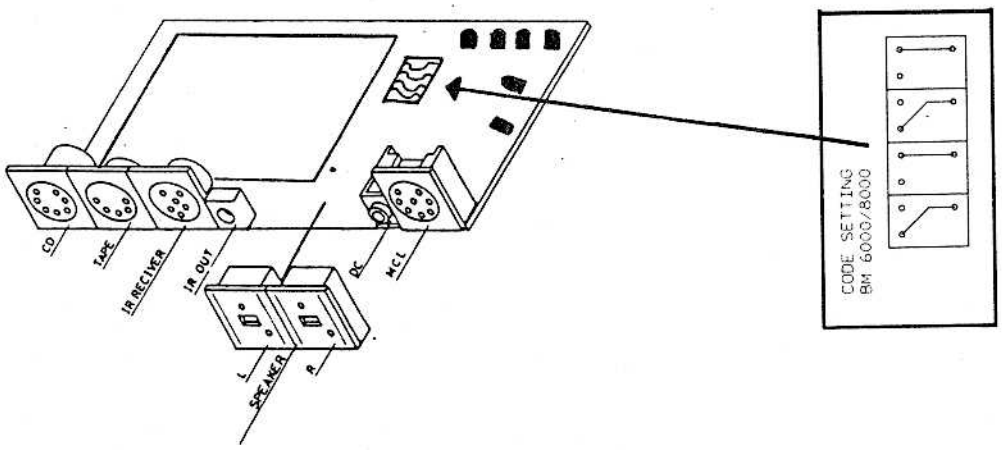
IMPORTANT: In order to operate the code converter with the Beosystem 6000 it will be necessary to modify the Beomaster 6000 receiver. This modification should only be performed by an authorized Bang & Olufsen service center. The modification instructions are on page 13. If your Beosystem 6000 or 8000 system is installed with Master Control Links, see page 12 of this instruction sheet for special instructions.

1. Prepare the audio system.

IMPORTANT! Always disconnect the audio system from AC power before installing the code converter.

2. Set the code switches in the control box.

Remove the plastic cover from the control box (Item #1). This is done by gently spreading the the left and right sides of the cover at the bottom and lifting it away from the metal chassis. The underside of this cover contains a label indicating the location of the sockets. Place the uncovered chassis of the control box on a table with the sockets facing you. Just to the right of the shielded box you will see four blue "switches". Each switch has two positions. Select the correct position by pressing down on each wire spring with a flat blade screwdriver, and inserting the wire spring under the appropriate hook according to the illustration. Set these switches as illustrated below, making sure that you have selected the correct setting for your system.



3. Connect the Code Converter to your Bang & Olufsen audio system. (See page 12 if Master Control Links are installed)

Using item # (8 Cable with Mini-Plug on one and and blue LED on the other end) Position the blue LED directly under the front of the Beomaster 6000 or 8000 receiver approximately 6" from the right hand side, so that you can see it protrude slightly from the bottom of the receiver. Route the wire underneath the receiver so that it exits from the rear.

Plug the mini-plug on the other end of this cable into the socket on the code converter box marked **IR OUT.**

4. Plug the Power Supply into the Code Converter

Plug item # 4 (AC Power Supply) into the socket on the code converter box marked **DC.** Do not plug the power supply into the AC outlet at this time.

5. Mount the Infrared Sensor to the table top mount and plug it into the control box.

Remove the rear cover of the infrared sensor. The rear cover unsnaps by inserting a small screwdriver no more than 1/4" into the gap between the front and rear of the sensor and twisting the screwdriver slightly to separate the front and rear portions.

The rear cover has 2 holes. Mount the sensor to the tabletop mount using the two small screws provided with the mount. Route the wire for the sensor around the right side of the mount as you look at it from the front. Snap the front of the sensor back into the rear portion, making sure that it is correctly seated.

Plug the sensor into the control box socket marked **TRANSCEIVER.**

6. Connect the MX 5000 Television to your audio system.

Plug one end of item #6 (cable with 5 pin DIN plug on each end) into either of the two sockets on the back of the MX 5000 television labeled **POWER LINK.** Plug the other end of this cable into the DIN socket of item #7 (Adaptor cable with 5 pin DIN socket on one end and 2-RCA plugs on the other end).
Now plug the RCA plugs from the adaptor cable into the sockets on the Beomaster 8000 marked **TAPE 2 IN** or on the Beomaster 6000 marked **TAPE 2 PLAY.** Make sure that the left and right channel RCA plugs are in the correct sockets. Some of the adaptor cables supplied with the code converter have a ground wire attached. It is not necessary to connect the ground wire. Allow it to hang free or cut it if you wish.

CAUTION: NEVER CONNECT THE 5 PIN PLUG OF ITEM #6 DIRECTLY TO THE INPUT OF THE BEOMASTER 6000 OR 8000 RECEIVER. DOING SO MAY RESULT IN DAMAGE TO THE AUDIO SYSTEM. ALWAYS USE ITEM #7 TO MAKE THIS CONNECTION TO THE RCA SOCKETS.

7. Complete the installation of your code converter and test it.

Recheck that the code switches are in the correct position, and re-install the cover on the control box. Since the control box requires no further attention, it can be placed in a spot where it will not be seen; e.g. behind the audio system.

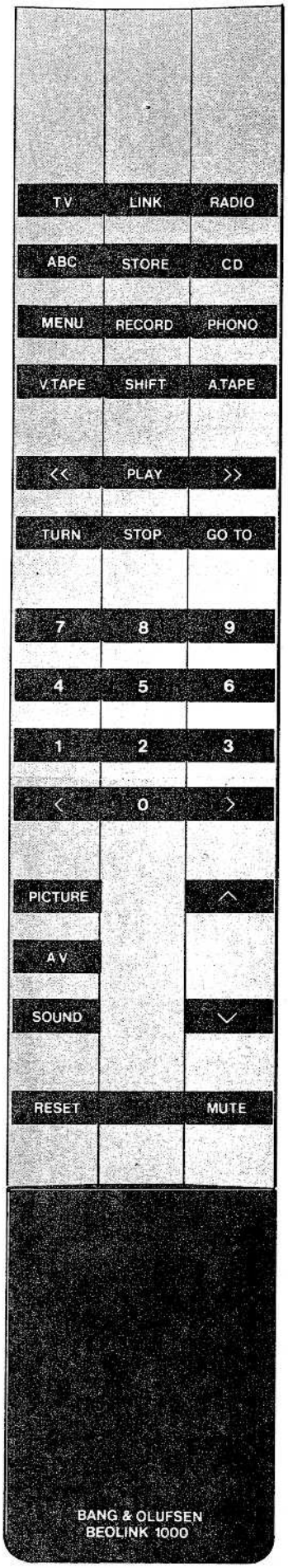
Place the sensor where it can be "seen" by the remote control.

Plug the AC power supply for the code converter into the AC outlet.

Plug the audio system and video system into the AC outlet.

Press the RADIO button on the Beolink 1000 terminal. The receiver should switch on and play a radio station. If the system does not operate, reposition the blue LED an inch or two closer to the right of the receiver, making sure that the LED protrudes (is visible) from the bottom of the receiver.

OPERATION WITH THE BEOLINK 1000 TERMINAL



TELEVISION AND VCR THROUGH AUDIO SYSTEM

Play MX 5000 TV through audio system speakers.	Press [SHIFT] [A.TAPE] then Press [TV] and operate TV functions in normal fashion.*
Play VX 5000 VCR through audio system speakers.	Press [SHIFT] [A.TAPE] then Press [V.TAPE] and operate VCR in normal fashion.*

*Refer to the Video System 5000 user manual for specific operating instructions.

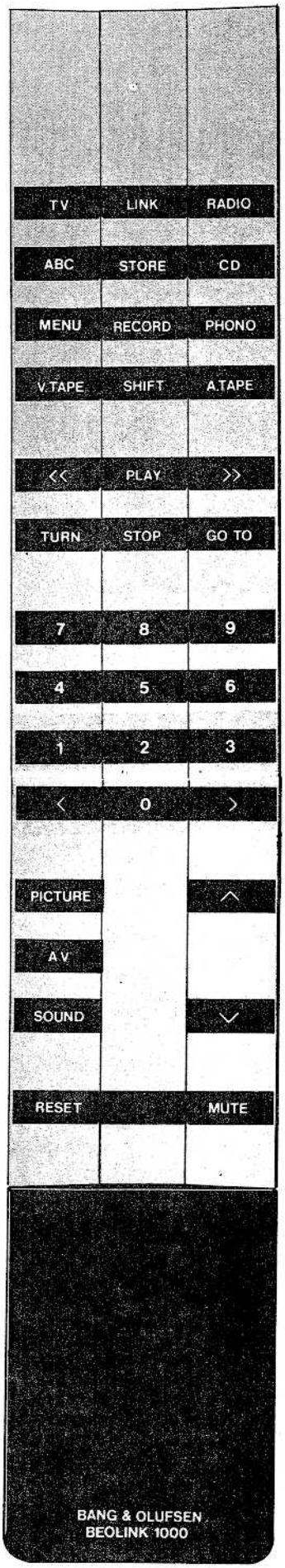
Adjust volume of TV or VCR through audio system speakers.	Press [^] to raise Press [v] to lower

Note: Both Television and audio system speakers adjust together. If you wish to adjust the volume of the audio system alone, press [AV], then raise and lower the volume. Press [AV] again to regain control of the video system.

Switch off audio system	Press [●]
Switch off tv and audio system	Hold [●] for 3 seconds

PRIMARY TUNER/AMPLIFIER FUNCTIONS

Play radio	Press [RADIO]
Select preset stations	Press [0] -[9] or [<] [>]
Adjust volume	Press [^] to increase Press [v] to decrease
Mute the sound	Press [MUTE] Press [MUTE] to recall the sound.



PRIMARY CD FUNCTIONS (5000 system only)

Play compact disc	Press [CD]
Search	Press [<<] or [>>]
Stop search	Press [STOP] or [PLAY]
Stop playing	Press [STOP]
Resume playing	Press [PLAY]
Select track number	Press [0]-[9] or [<]-[>]

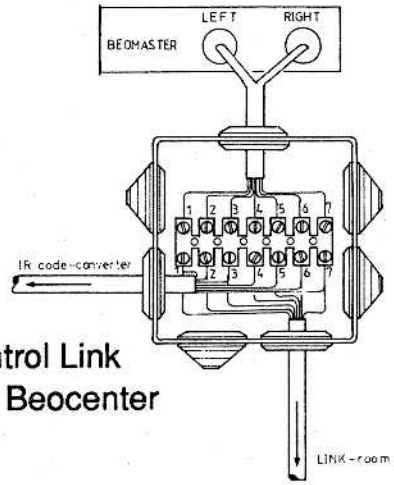
PRIMARY TURNTABLE FUNCTIONS

Play the record	Press [PHONO]
Stop playing	Press [STOP]
Resume playing	Press [PLAY]

PRIMARY AUDIO TAPE FUNCTIONS

Play tape	Press [A.TAPE]
Rewind or wind tape	Press [<<] or [>>]
Stop playing	Press [STOP]
Resume playing	Press [PLAY]
Record	Select source, e.g [PHONO] then Press [RECORD] [RECORD]
Stop recording	Press [STOP] [STOP]
Return to beginning of recording	Press [SHIFT] [TURN]

INSTRUCTIONS FOR HOOKUP OF THE CODE CONVERTER WHEN MASTER CONTROL LINKS ARE INSTALLED



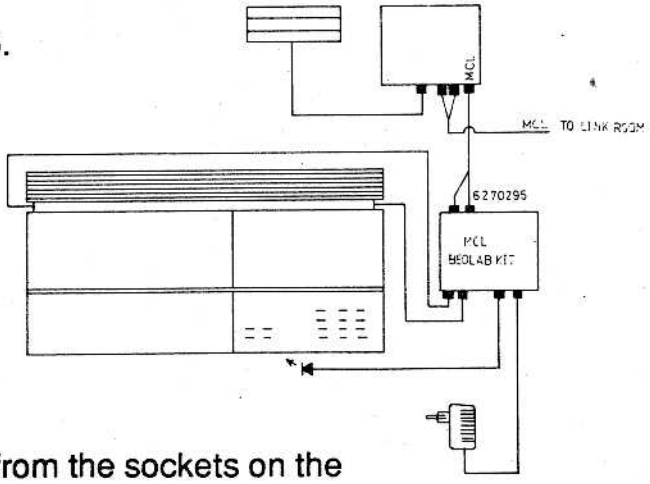
Beosystem 5000 or
Beocenter 7700
This step replaces step 3 on page 5

The code converter is connected in parallel to to the Master Control Link cable which is plugged into speaker 2 of the Beomaster 5000 or Beocenter 7700.

Using item # 5 (Cable with 8 pin DIN plug on one end and 2-3 pin speaker plugs on the other end), cut off the 3 pin speaker plugs and strip back the insulation . Insert each wire into one end of the terminal strip as shown in the diagram Plug the other end of this cable into the socket on the code converter box marked **MCL** (last socket on the right.)

Cut the MCL cable which is plugged into the Beomaster or Beocenter at the point where the terminal strip will be placed, and strip back the insulation on both wire ends. Insert both ends into the terminal strip as shown, making sure that the wires match color for color.

After completing this step, go to step 4 on page 5.



Beomaster 6000 or 8000.
This step replaces step 3 on page 8

Unplug the MCL cable with 3 pin speaker plugs from the sockets on the Beolab kit, keeping track of the left and right channels.

Using item # 5 (Cable with 8 pin DIN plug on one end and 2-3 pin speaker plugs on the other end), plug the 3 pin plugs into the sockets on the Beolab kit Plug the other end of this cable into the socket on the code converter box marked **MCL** (last socket on the right.)

After completing this step, go to step 4 on page 8.

MODIFICATION OF BEOMASTER 6000 FOR USE WITH CODE CONVERTER

IMPORTANT: This modification should only be performed by an authorized Bang & Olufsen technician. This modification takes place in sensitive microcomputer circuitry. Therefore, observe all precautions against static discharge.

1. Open the Beomaster 6000 per the dissasembly instructions in the service manual.

2. Locate module 2 (computer circuit board) and remove the metal shield.

3. Locate R 37 and remove it from the circuit board.

4. Install a jumper wire between pins 1 and 11 of IC 1.

5. Reassemble the Beomaster 6000.